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REMARKS

The present response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

Status of Claims

Claims 1-28 are pending. No claims have been allowed. Claims 14-18 have been objected to. Claims 1-13 and 19-28 have been rejected.

Claims 1, 13, 19, 21 and 26 have been amended herein. Applicants respectfully assert that the amendments to the claims add no new matter.

Claims 14, 20 and 28 have been canceled without prejudice or disclaimer. In making this cancellation without prejudice, Applicants reserve all rights in these claims to file divisional and/or continuation patent applications.

New claims 29-32 have been added in order to further define what the Applicants consider to be the invention. Applicants respectfully assert that no new matter has been added by these new claims.

CLAIM REJECTIONS

35 U.S.C. § 103 Rejections

In the Office Action, the Examiner rejected claims 1-6, 9-12 and 19-28 under 35 U.S.C. § 103(a), as being unpatentable over Nishioka (U.S. Patent No. 5,967,968). Applicants respectfully traverse this rejection in view of the remarks that follow.

Nishioka discloses an endoscopic imaging system for viewing an object within a patient's body cavity including an endoscope for viewing an image of the object, an instrument channel extending therethrough, and a lens at the distal end adjacent the instrument channel; and an elongate probe configured to be inserted through the instrument channel and contact the object, the probe comprising a plurality of unevenly spaced graduations along its length, each graduation indicating a size factor used to scale the image

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produced by the endoscope. Nishioka also discloses a method of determining the size of an object in a patient's body cavity including the steps of: generating an image of the object using an instrument; extending a probe having a series of unevenly spaced graduations from the instrument to the object; identifying the graduation on the probe visible in the image nearest to the instrument; and scaling the image viewed by the endoscope by a size factor corresponding to the identified graduation.

Applicants have amended independent claim 1 to recite a method for capturing in-vivo images comprising the steps of (1) capturing an in-vivo image using an autonomous in vivo device comprising a housing containing an imager, a detector, an illumination device and a transmitter; (2) overlaying a non-linear scale on the in-vivo image; and (3) calculating a size of an object within the image, wherein said calculation is based on illumination intensity of said illumination device. Support for these amendments is found in the specification as filed at page 10, line 23 - page 11, line 17.

Nishioka does not teach or suggest all the limitations of independent claim 1 as amended herein. Nishioka does not teach or suggest capturing in-vivo images using an autonomous in vivo device comprising a housing containing an imager, a detector, an illumination device and a transmitter. Nishioka also does not teach or suggest calculating the size of an object within the image on illumination intensity of said illumination device. Accordingly, Nishioka does not render amended independent claim 1 obvious. Claims 2-6 and 9-12 are dependent upon amended independent claim 1 and therefore include all of its limitations, such that Nishioka also does not render claims 2-6 and 9-12 obvious.

Applicants have also added new claims 29-32 that are dependent upon amended independent claim 1. These new claims also include all of the limitations of amended independent claim 1, such that Nishioka also does not render new claims 29-32 obvious.

Applicants have also amended independent claim 19 to recite an autonomous in-vivo imaging device comprising an imager; a detector; a transmitter; an illumination device; and a circuit to add a non-linear scale to images collected by the imager and to calculate a size of an object within an image, wherein said calculation is based on illumination intensity of said illumination device. Support for these amendments is found in the specification as filed at page 10, line 23 - page 11, line 17.

Nishioka does not teach or suggest all the limitations of independent claim 19 as amended herein. Nishioka does not teach or suggest an autonomous in-vivo imaging device comprising an imager; a detector; a transmitter; an illumination device. Nishioka also does not teach or suggest an autonomous in-vivo imaging device comprising a circuit to add a non-linear scale to images collected by the imager and to calculate a size of an object within an image, wherein said calculation is based on illumination intensity of said illumination device. Accordingly, Nishioka does not render amended independent claim 19 obvious.

Applicants have further amended independent claim 21 to recite a system comprising an autonomous in-vivo device comprising a housing containing an imager, a detector, an illumination device and a transmitter, the system also comprising a controller to (1) receive an image from the in-vivo device; (2) add a non-linear scale to the image; and (3) calculate a size of an object within the image based on illumination intensity of said illumination device. Applicants have similarly amended independent claim 26 to recite a system comprising an autonomous in-vivo device comprising a housing containing an imager, a detector, an illumination device and a transmitter, the system also comprising a controller to (1) receive from the in-vivo device an image comprising a non-linear scale; and (2) estimate a distance between the in-vivo imaging device and an object in said images based on illumination intensity of said illumination device. Support for these amendments is found in the specification as filed at page 10, line 23 - page 11, line 17.

Nishioka does not teach or suggest all the limitations of independent claim 21 as amended herein. Nishioka does not teach or suggest a system comprising an autonomous in-vivo device comprising a housing containing an imager, a detector, an illumination device and a transmitter. Nishioka also does not teach or suggest that the system comprises a controller to receive an image from the autonomous device and to calculate a size of an object within the image based on illumination intensity of said illumination device. Nishioka also does not teach or suggest a system comprising a controller to receive from the autonomous device an image comprising a non-linear scale and to estimate a distance between the in-vivo imaging device and an object in said images based on illumination intensity of said illumination device. Accordingly, Nishioka does not render amended independent claim 21 or amended independent claim 26 obvious. Claims 22-25 are dependent upon amended independent claim 21 and therefore include all of its limitations, and claim 27 is dependent

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upon amended independent claim 26 and therefore include all of its limitations, such that Nishioka also does not render claims 22-25 and 27 obvious.

Accordingly, Applicants respectfully request that the Examiner withdraw the rejections of claims 1-6, 9-12 and 19-28 and pass these claims, as well as new claims 29-32, to allowance.

In the Office Action, the Examiner also rejected claims 7 and 8 under 35 U.S.C. § 103(a), as being unpatentable over Nishioka in view of Tsujiuchi et al. (U.S. Patent No. 4,895,431). Claims 7 and 8 are dependent upon amended independent claim 1 and therefore include all of its limitations. Tsujiuchi et al. does not remedy the limitations of Nishioka, such that the combination of Nishioka and Tsujiuchi et al. does not render claims 7 and 8 obvious. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection.

In the Office Action, the Examiner also rejected claim 13 under 35 U.S.C. § 103(a), as being unpatentable over Zobel (U.S. Patent No. 4,702,229). The Examiner indicated that dependent claims 14-18 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten including all the limitations of the base claim and any intervening claims. In response, Applicants have amended independent claim 13 to incorporate the limitations of dependent claim 14 (now canceled), namely that the imaging device comprises a transmitter. Accordingly, amended independent claim 13 is now allowable, as are its dependent claims 15-18. Accordingly, Applicants respectfully request that the Examiner withdraw this rejection and pass these claims to allowance..

Conclusion

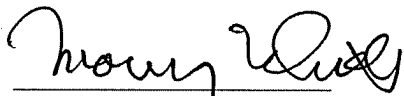
In view of the foregoing amendments and remarks, Applicants assert that the pending claims are allowable. Their favorable reconsideration and allowance is respectfully requested.

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Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

Please charge any fees associated with this paper to deposit account No. 50-3355.

Respectfully submitted,


Morey B. Wildes
Attorney/Agent for Applicant(s)
Registration No. 36,968

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Pearl Cohen Zedek Latzer, LLP
1500 Broadway, 12th Floor
New York, New York, 10036
Tel: (646) 878-0800
Fax: (646) 878-0801